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What Do You Know?

Access to huge amounts of information has caused some in education to start questioning whether measuring quantity rather than quality and performance best assesses an individual's knowledge. With knowledge increasing faster than ever in human history, "knowing that" (facts) seems a lot less relevant than "knowing how" and "knowing why."

Against the barrage of information and "knowledge," individual learners need a different set of skills to be successful in the new world. Learning how to learn is now recognized as a crucial skill for learners of all types, and of all ages, over and above the ability to memorize and recall specific facts. In other words, students (learners) do need to master and have readily available a core set of skills and facts, but to be really successful in the future will require these learners to master new skills and attitudes: How to locate, process, synthesize and communicate information, and a fundamental attitude shift toward "knowledge" that considers it not a fixed target but an evolving personal and social process.

What we know today about practically any field is likely to change within a few weeks, a few months, or just a few years. And the circumstances in which individuals will find themselves "learning" will be quite different, and more varied, than the traditional classroom of the past. Look at any old picture of a classroom and you see a setting designed for the 'transfer' of information from an authoritative figure (the teacher), who usually relied on a limited set of sources for that information (textbooks, mainly). The goal in this case is to transmit the information as efficiently as possible, in the hope that the learners will be able to recite it back as evidence of their learning. Somehow, being able to recall bits of information when queried is supposed to prepare us for a productive life -when in reality, the number of times when a job depends on that skill is probably very small.

Even within traditional schools, universities, and training organizations there is a growing recognition that this should not be the only approach, and several alternatives have been and are being tried with varying degrees of success. If a school wants to teach something other than facts, how can it go about it? What should students learn beyond the facts?

The most interesting approaches, from my perspective, are those that begin by questioning even the methods to teach "the facts," and the basic skills (reading, writing, basic numeracy) that go with them. Take the traditional setting and do away with it: assume that teachers and students can work and learn better when the physical layout of the classroom does not have all chairs facing in one direction all the time. Think about activities that can go on within that learning environment that allow teachers and students to approach the material from a variety of perspectives. Expect students to be capable of developing their own understanding of the subject under study. Challenge teachers to become learners side by side with the students, and to be willing to learn from them as well. Provide the resources and tools to let students explore subjects in depth. Evaluate the learner's progress through something other than a paper-and-pencil test. Engage the community, especially the parents.

It is in the issue of resources that the Internet has started to change Everything -while changing nothing yet for huge numbers of people around the world. When students are allowed and encouraged to assume greater responsibility for their learning, many people (even the parents!) are surprised to see it happen. This responsibility may take the form of having access to a vast collection of resources and use it responsibly despite the many easy temptations. This is key.

In the past students did not have to assume any responsibility for the context of learning (the classroom) nor the sources of information they were allowed to use (textbooks): they were there, and nothing else was really expected. But with the Internet, learners in any context now are being asked to reflect on the sources, and to grapple with questions that simply don't arise often with textbooks (e.g., "Who is the publisher of this information? How do I know that they are a trustworthy source?"). Because both the quantity and quality of the information present new practical challenges, our pedagogies are also being challenged. And once the way we teach is open to question, 'what' is being taught is also opened up.

Our understanding of learning is evolving from a largely personal, isolated experience ("remember, no cheating on the test!") to one that is social and connected, where I learn from others and I can teach others as well. Because there are so many "facts" and "information" the task is not so much to recall the one the teacher wants but to be able to locate it efficiently, understand why a particular fact is important, and how it fits with other related facts. My own understanding of these relationships is enriched by conversations, interactions, and collaborations I participate in actively with teachers and fellow learners. My mastery of a particular skill (e.g., public speaking) is developed in social settings rather than in isolation chambers where there's no one to help me improve my performance. The teachers are there to guide my explorations thanks to their experience, not to limit my curiosity and creativity. What I learn is much more than facts: it's the stuff of life.

Next time:

Imagine that the social aspects of learning are presented in a completely different way: instead of face-to-face, the interactions, conversations, and collaboration are taking place through computer networks. Worse, better, or no difference?

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